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COMMENTS

RESPONSIBILITY FOR DAMAGES CAUSED BY MAINS BROKEN BY INCREASED PRESSURES

The Appellate Division of the Supreme Court of New York rendered in May, 1919, an opinion in a case involving claim for damages due to the breaking of a water main after a higher pressure had been placed on the main by the introduction of Catskill water. The reasoning of the court is of interest to all water works men who have occasion to increase pressures on mains, and a brief outline of conditions will be given, together with the text of the opinion.

When the Catskill system was designed by the engineers of the Board of Water Supply the effect of high pressure on the old mains was considered, and it was decided that this question was one to be dealt with by the Department of Water Supply, Gas and Electricity, which has jurisdiction over the furnishing and delivering of water to the city. The engineers of this department examined the various designs and thickness of pipe used in the distribution systems of the five boroughs, and concluded that the system could safely stand a pressure of about 80 pounds per square inch. It was expected that numerous individual pipes would break when the increased pressure was turned on, but it was deemed impracticable to test the 200 miles of mains to be subjected to the higher pressure by isolating each section of pipe between valves and subjecting it to a hydrostatic test. The plan adopted was to turn on the higher pressure gradually and to repair any defects that developed. It was found that there was a number of lengths of mains that failed

under the higher Catskill pressure during the first year. The breaks were scattered throughout the boroughs of Manhattan and the Bronx, where the increase in pressure was most extensively made, the total number of breaks attributable to this cause being about 100. This is about double the normal number of breaks recorded in a year's time in these boroughs. After the first year the number of breaks has been no more than normal.

It is believed that the plan followed is the reasonable one under New York City conditions, but the decision of the court, if upheld by the Court of Appeals, shows that the city must bear all the cost of damages occasioned by a break in a water main on which the pressure has been raised without a preliminary test of strength. The opinion by Justice Bijur, in which all the judges concur, is as follows:

> Plaintiffs (executors of Kalman Haas) sue for damage caused in premises occupied by them by an inflow of water resulting from a break in a water main. The break succeeded the turning on of full pressure from the new Catskill aqueduct. It was shown that the pipes which burst had been laid some forty-seven years ago, at a time when the art of casting was not as well developed as at present; that such pipes undoubtedly corrode and grow weaker with use; that the city authorities were well aware that there was some danger of bursting as a result of the proposed increased pressure; that the pressure previously employed was 25 pounds to the square inch; that 10 additional pounds were first added; that the pipes thereupon broke in two localities in the neighborhood of plaintiffs' premises; that two weeks thereafter an additional 10 pounds pressure was introduced and that two days later the break occurred which is the subject matter of the present action.
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> It is urged on behalf of the city that no causal connection was shown between the break in the pipes and the increased pressure. The question whether an effect complained of had been adequately traced to an actionable cause is necessarily one of degree and must be determined in each particular case according to all its circumstances. I think it suffices without rehearsing all the facts to say that the evidence is sufficient to convince a reasoning mind—perhaps even beyond a reasonable doubt—that the increased pressure caused the break.
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> The city also contends that it is not chargeable with negligence under the general rule which accords to a municipality greater leeway in these matters than to an individual, and also because, as it claims, it was a fair inference from the testimony adduced at the trial that there was no feasible mode of testing the pipes before pressure was applied except by digging up all the city streets and testing every foot of pipe.
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> The more liberal rule as to the city's vigilance and diligence has no application. Here no question of notice or knowledge is involved, it being apparent that all the facts were known to and the situation perfectly realized by the appropriate city authorities. Whether and to what extent typical

tests might have been made I do not think has been adequately developed at the trial, but assuming that the only perfectly reliable test would have been to examine all the pipes at a prodigious expense, the city cannot escape liability by voluntarily avoiding such expense and then practically making a more economical test at plaintiffs' cost. The method adopted amounted to a test in practice and the two breaks first referred to were a sufficient indication of what might and actually did thereafter follow. The second test in practice resulted in the break which caused the damage here complained of. I have no hesitation in holding that while the method adopted may have been on the whole a wise one from the standpoint of economy, the city cannot escape liability for its negligence by showing that the proper way of performing this work would have been more expensive.

W. W. BRUSH.

DAYTON'S EXPERIENCE IN MAKING COLLECTIONS

The collection of bills for water furnished by municipally owned plants is said to be lax at times. This was certainly the case in Dayton until two years ago. Consumers who failed to pay their bills by the fifteenth of the month were supposed to have a 10 per cent additional charge made against them. If a delinquent consumer offered this penalty it was received cheerfully and there was a place in the ledger for recording its receipt. If the consumer failed to tender the penalty, the face of the original bill was accepted for full payment. The rule was such a dead letter that a number of real estate operators made a practice of paying their water bills annually and not quarterly, and, it is hardly necessary to say, they did not pay in advance. One man operating over a hundred properties came into the office one day with a sheaf of bills from which he selected for payment only those carrying an overdue notice at the bottom. The water supply to the worst offenders was sometimes shut off, but that was about all that was done to enforce payments when long overdue.

The system was unfair to the consumer and recognized as a bad business condition which the management must remedy. Tenants left houses without paying their water bills and it was not always possible to collect them from the landlords. The losses from this cause and through the interest on overdue accounts was considered to be greater than the salary for a good assistant. It was accordingly decided to make a change and to attempt to collect bills promptly, even though nobody connected with the department had much confidence in the possibility of accomplishing a decided improvement. When the bills were sent out a notice accompanied them stating that the city had been wasting money through previous failure to insist